CHAPTER

West-Central Europe

What You Will Learn...

In this chapter you will learn about the physical features, climate, and natural resources of West-Central Europe. You will also study the histories and cultures of the countries in this region. Finally, you will learn about life in these countries today.

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FOCUS ON READING AND SPEAKING

Recognizing Word Origins Many of the words we use today came into English from other languages, such as Latin, French, or German. As you read this chapter, think about the origin, or sources, of words. Knowing a word's origin can help you remember the word's meaning. See the lesson, Recognizing Word Origins, on page 532.

Presenting a Persuasive Speech As you read about West-Central Europe, you will discover some issues. Issues are topics that people disagree about. Think about which of the issues seem important to you. Later, in a persuasive speech you will take a stand on one of these issues.





SECTION

What You Will Learn...

Main Ideas

- The physical features of West-Central Europe include plains, uplands, mountains, rivers, and seas.
- 2. West-Central Europe's mild climate and resources support agriculture, energy production, and tourism.

The Big Idea

West-Central Europe has a range of landscapes, a mild climate, and rich farmland.

Key Terms and Places

Northern European Plain, a 424 North Sea, p. 426 English Channel, p. 426 Danube River, p. 426 Rhine River, p. 426 navigable river, p. 426

Draw a chart like the one here. As you read, list facts about the region's physical features, climate, and resources.

West-Central Europe	
Climate and Resources	

Physical Geography

If YOU lived there...

You are a photographer planning a book about the landscapes of West-Central Europe. You are trying to decide where to find the best pictures of rich farmland, forested plateaus, and rugged mountains. So far, you are planning to show the colorful tulip fields of the Netherlands, the hilly Black Forest region of Germany, and the snow-covered Alps in Switzerland.

What other places might you want to show?

BUILDING BACKGROUND The countries of West-Central Europe are among the most prosperous and powerful countries in the world. The reasons include their mild climates, good farmland, many rivers, market economies, and stable governments. In addition, most of these countries cooperate as members of the European Union.

Physical Features

From fields of tulips, to sunny beaches, to icy mountain peaks, West-Central Europe offers a wide range of landscapes. Even though the region is small, it includes three major types of landforms-plains, uplands, and mountains. These landforms extend in wide bands across the region.

Plains, Uplands, and Mountains

Look at the map at right. Picture West-Central Europe as an open fan with Italy as the handle. The outer edge of this imaginary fan is a broad coastal plain called the Northern European Plain. This plain stretches from the Atlantic coast into Eastern Europe.

Most of this plain is flat or rolling and lies less than 500 feet (150 m) above sea level. In the Netherlands, parts of the plain dip below sea level. There, people must build walls to hold back the sea. In Brittany in northwestern France, the land rises to form a plateau above the surrounding plain.

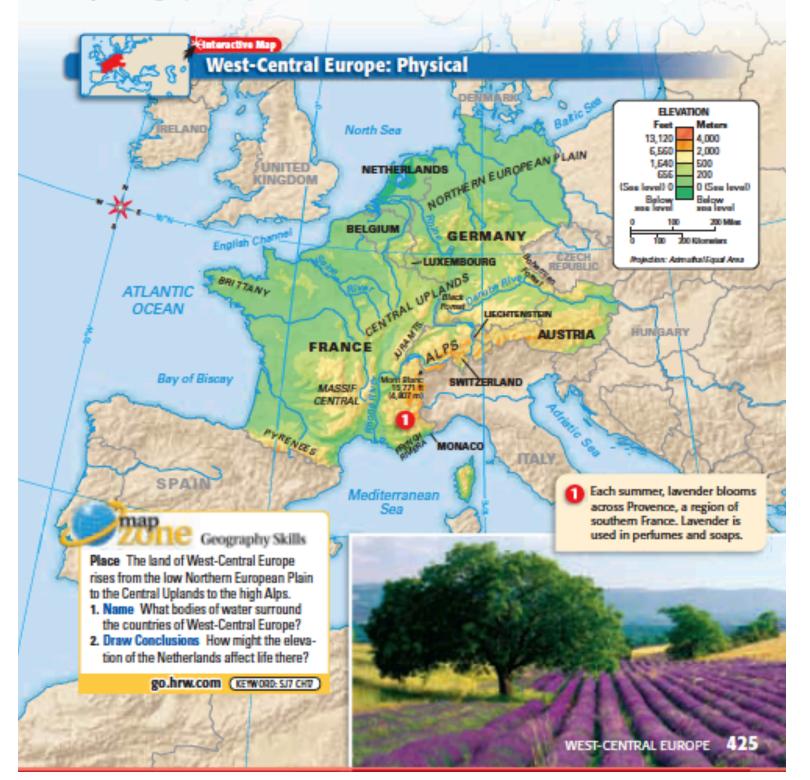
The Northern European Plain provides the region's best farmland. Many people live on the plain, and the region's largest cities are located there.

The Central Uplands extend across the center of our imaginary fan. This area has many rounded hills, small plateaus, and valleys. In France, the uplands include the <u>Massif</u> Central (ma-SEEF sahn-TRAHL), a plateau region, and the Jura Mountains. This range is on the French-Swiss border. In Germany, uplands cover much of the southern two-thirds of the country. Dense woodlands, such as the Black Forest, blanket many of the hills in this area.

The Central Uplands have many productive coalfields. As a result, the area is important for mining and industry. Some valleys provide fertile soil for farming, but most of the area is too rocky to farm.

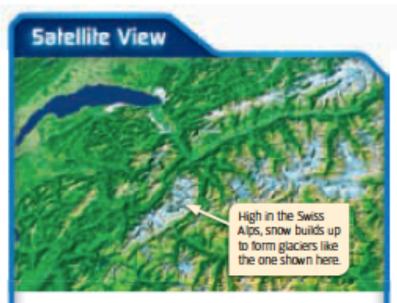
FOCUS ON READING

Look up the origin of massif in a dictionary. How does its origin relate to the description of the Massif Central?



Along the inner part of our imaginary fan, the land rises dramatically to form the alpine mountain system. This system includes the Alps and the Pyrenees, which you read about in the last chapter.

As you have read, the Alps are Europe's highest mountain range. They stretch from southern France to the Balkan Peninsula. Several of the jagged peaks in the Alps soar to more than 14,000 feet (4,270 m). The highest peak is Mont Blanc (mawn BLAHN), which rises to 15,771 feet (4,807 m) in France. Because of the height of the Alps, large snowfields coat some peaks.



The Swiss Alps

At high elevations in the Alps, snow does not melt. For this reason, the snow builds up over time. As the snow builds up, it turns to ice and eventually forms glaciers. A glacier is a large, slow-moving sheet or river of ice. The satellite image above shows glaciers in the Swiss Alps. The white regions are the glaciers, and the blue areas are alpine lakes.

The buildup of snow and ice in the Alps can cause avalanches at lower elevations. An avalanche is a large mass of snow or other material that suddenly rushes down a mountainside. Avalanches pose a serious danger to people.

Analyzing Why do glaciers sometimes form at higher elevations in the Alps?

Water Features

Several bodies of water are important to West-Central Europe's physical geography. The North Sea and English Channel lie to the north. The Bay of Biscay and Atlantic Ocean lie to the west. The Mediterranean Sea borders France to the south.

Several rivers cross the region as well. Look at the map on the previous page to identify them. Two important rivers are the Danube (DAN-yoob) and the Rhine (RYN). For centuries people and goods have traveled these rivers, and many cities, farms, and industrial areas line their banks.

Several of West-Central Europe's rivers are navigable. A navigable river is one that is deep and wide enough for ships to use. These rivers and a system of canals link the region's interior to the seas. These waterways are important for trade and travel.

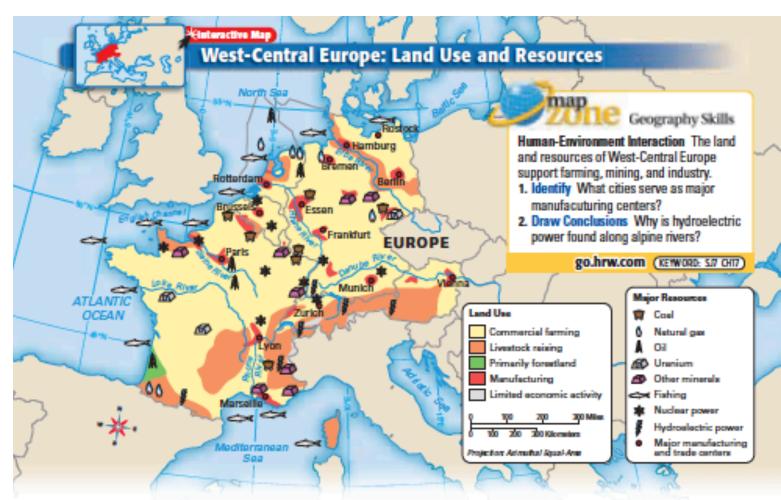
READING CHECK | Finding Main Ideas What are the region's three major landform areas?

Climate and Resources

A warm ocean current flows along Europe's northwestern coast. This current creates a marine west coast climate in most of West-Central Europe. This climate makes much of the area a pleasant place to live. Though winters can get cold, summers are mild. Rain and storms occur often, though.

At higher elevations, such as in the Alps, the climate is colder and wetter. In contrast, southern France has a warm Mediterranean climate. Summers are dry and hot, and winters are mild and wet.

West-Central Europe's mild climate is a valuable natural resource. Mild temperatures, plenty of rain, and rich soil have made the region's farmlands highly productive. Farm crops include grapes, grains, and vegetables. In the uplands and Alps, pastures and valleys support livestock.



Energy and mineral resources are not evenly distributed across the region, as the map shows. France has coal and Iron ore, Germany also has coal, and the Netherlands has natural gas. Fast-flowing alpine rivers provide hydroelectric power. Even so, many countries must import fuels.

Another valuable natural resource is found in the breathtaking beauty of the Alps. Each year, tourists flock to the Alps to enjoy the scenery and to hike and ski.

READING CHECK Summarizing What natural resources contribute to the region's economy?

SUMMARY AND PREVIEW West-Central Europe includes low plains, uplands, and mountains. The climate is mild, and natural resources support farming, industry, and tourism. Next, you will read about France and the Benelux Countries.

Section 1 Assessment

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Reviewing Ideas, Terms, and Places

- 1. a. Describe What are the main physical features of the Northern European Plain?
 - b. Analyze How does having many navigable rivers benefit West-Central Europe?
- 2. a. Recall What is the region's main climate? b. Make Inferences How might an uneven distribution of mineral resources affect the region?

Critical Thinking

3. Categorizing Draw a fan like this one. Label each band with the landform area in West-Central Europe it represents. Using your notes, identify each area's physical features, climate, and resources.



FOCUS ON SPEAKING

4. Noting the Physical Geography What issues related to land use and resources can you think of? Could mining coal or importing fuel be an issue? Jot down ideas.